

Discussion on "Electrodynamics & Mechanics of Multigap Low-beta SC Structures" by Evgeny Zaplatin

Zaplatin was asked about the trade-off between cylindrical cavity cross-section and the square cross-section that he is proposing. He showed that the peak magnetic field is reduced by 10 % by introduction of the square cross-section. He also pointed out that this design allows for purely 2D weldings, which gives more options on the machine shops that could do the fabrication. His optimum design still has a large corner radius. This has been the result of a mechanical stability study. Their final endwall shape does only require minimal additional stiffening.

He also was asked if tuning a spoke resonator by the endwall is the best way to do tuning. Or if one could for example envision to add a tuning feature in the spoke itself and make the endwall rigid. Zaplatin in response did address the large tuning range of his endwall design (in the 700 MHz case). This shows that tuning this way is efficient.